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Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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SHEET

1

OF

7

**Complete if Known**

Application Number: 09/995,894

Filing Date: 11/28/01

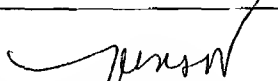
First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

Examiner Initials	U.S. Documents	U.S. Patent Document Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	Number		
P7D	US 4,717,655	Fulwyler	01/05/1988
	US 5,573,909	Singer et. Al	11/12/1996
	US 5,585,069	Zanzucchi et al.	12/17/1996
	US 5,593,838	Zanzucchi et al.	01/14/1997
	US 5,723,218	Haugland et al.	03/03/1998
	US 5,744,305	Fodor et al.	04/28/1998
	US 5,807,755	Ekins	09/15/1998
	US 5,837,551	Ekins	11/17/1998
	US 5,874,219	Rava et al.	02/23/1999
	US 5,989,835	Dunlay et al.	11/23/1999
	US 6,023,540	Wait et al.	02/08/2000
	US 5,281,370	Asher et al.	01/25/1994
	US 5,516,635	Ekins et al.	05/15/1996
	US 5,518,883	Soini	05/21/1996
	US 5,415,835	Brueck	05/16/1995
	US 5,604,097	Brenner	02/18/1997
	US 5,800,992	Fodor	09/01/1998
	US 6,023,540	Walt et al.	02/08/2000
	US 6,327,410	Walt et al.	12/04/2001
	US 6,266,459	Walt et al.	07/24/2001
	US 6,429,027	Chee et al.	08/06/2002
	US 5,747,349	Van den Engh et al.	05/05/1998
	US 5,900,481	Lough et al.	05/04/1999
	US 6,133,436	Koster et al.	10/17/2000
	US 6,084,991	Sampas	07/04/2000
P7D	US 5,422,246	Koopal et al.	06/06/1995

Examiner Signature		Date Considered	12/09/04
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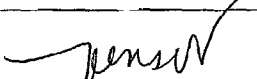
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	Number		
PST	US 5,770,358	Dower	07/23/1998
	US 3,571,614 A	Carreira	04/13/1997
	US 5,510,270 A	Fodor et al.	04/23/1996
	US 6,083,763	Balch	07/04/2000
	US 6,172,218 B1	Brenner	01/09/2001
	US 5,415,835	Brueck et al.	05/16/1995
	US 6,429,027 B1	Chee et al.	08/06/2002
	US 5,532,128	Eggers et al.	07/02/1996
	US 5,516,635	Ekins et al.	05/14/1996
	US 5,961,923	Nova et al.	10/05/1999
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	US 4,822,746	Walt	06/25/1986
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	US 5,002,867	Macevicz	03/26/1991
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	US 5,252,494	Walt	10/12/1993
	US 5,254,477	Walt	10/19/1993
PST	US 5,298,741	Walt et al.	03/29/1994

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SHEET 3 OF 7**Complete if Known**

Application Number: 09/995,894

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First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

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PTD	US 5,306,618	Prober et al.	04/26/1994
	US 5,320,814	Walt et al.	06/14/1994
	US 5,362,653	Carr et al.	11/08/1994
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	US 5,814,524	Walt et al.	09/29/1998
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	US 5,565,324	Still et al.	10/15/1996
	US 5,567,627	Lehnén	10/22/1996
	US 5,633,724	King et al.	05/27/1997
	US 5,633,972	Walt et al.	05/27/1997
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	US 6,090,545	Wohlstadter et al.	07/18/2000
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	US 6,200,737	Walt et al.	03/13/2001
	US 3,998,525	Giglia	12/21/1976
	US 4,075,013	Ward et al.	02/21/1978
	US 4,456,513	Kawal et al.	06/26/1984
PTD	US 4,575,407	Diller	03/11/1986

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SHEET 4 OF 7**Complete if Known**

Application Number: 09/995,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

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	Number		
PDD	US 4,591,550	Hafeman et al.	05/27/1986
	US 5,444,330	Leventis et al.	08/22/1995
	US 5,587,128	Wilding et al.	12/24/1996
	US 5,498,392	Wilding et al.	03/12/1996
	US 5,855,753	Trau et al.	01/05/1999
	US 6,033,547	Trau et al.	03/07/2000
	US 6,083,763	Balch	07/04/2000
	US 6,172,218 B1	Brenner	01/09/2001
	US 5,415,835	Brueck et al.	05/16/1995
	US 6,429,027 B1	Chee et al.	08/06/2002
	US 5,532,128	Eggers et al.	07/02/1996
	US 5,516,635	Ekins et al.	05/14/1996
	US 5,961,923	Nova et al.	10/05/1999
	US 5,770,358	Dower	07/23/1998
	US 5,128,006	Mitchell et al.	07/07/1992
	PDD	US 6,251,691	Seul

**FOREIGN DOCUMENTS**

Examiner Initials	Foreign Patent Documents			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation
	Office	Number	Kind Code (if known)			
PDD	PCT	WO 95 12803		Heller et al.	05/11/1995	I
	PCT	WO 96 07917		Nanogen	03/14/1996	
	PCT	WO 97 40383		Glaxo Group	10/30/1997	
	PCT	WO 98 06007		McCardle	02/12/1998	
	PCT	WO 98 53303		Pallas et al.	11/26/1998	
	PCT	WO 93/02369		Lehnen	02/40/1993	
PDD	PCT	WO 96/03212		Brenner	02/08/1996	I

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SHEET 5OF 7**Complete if Known**

Application Number: 09/895,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

**FOREIGN DOCUMENTS**

Examiner Initials	Foreign Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation
	Office	Number Kind Code (if known)			
[Signature]	Can.	1,248,873	Tripatzis	01/17/1989	
	PCT	WO 99/18434	Walt et al.	04/15/1999	
	PCT	WO 99/19519	Luminex Corp	04/22/1999	
	PCT	WO 91/19023 A	Savin, Corp	12/12/1991	
	EP	EP 0 269 764	Heller	06/08/1988	
	EP	EP 0 478 319	Hashimoto et al.	04/01/1992	
	EP	EP 0 723 140	SRI International	07/24/1996	
	PCT	WO 89/11101	Lindmo	11/16/1989	
	PCT	WO 93/06121	Dower et al.	04/01/1993	
	PCT	WO 93/24517	Furka et al.	12/09/1993	
	PCT	WO 97/14023	Chandler et al.	04/17/1997	
	PCT	WO 96/04547	Ramsey	02/15/1996	
	PCT	WO 00/04372	Anslyn et al.	01/27/2000	
	PCT	WO 99/60170	Baier et al.	11/25/1999	
	PCT	WO 98/40725	Walt et al.	02/08/2000	
	PCT	WO 00/13004	Walt	03/09/2000	
	GB	GB 2 058 379 A	AGFA Gevaert	04/08/1981	
	PCT	WO 00/75373	Walt et al.	12/14/2000	

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SHEET 6 OF 7**Complete If Known**

Application Number: 09/995,894

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First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

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Attorney Docket Number: ARCY-C1

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume- issue number(s).	T2
PSO		Micheletto, et al. "A simple method for the production of a two-dimensional ordered array of small latex particles". <i>Langmuir</i> , vol. 11, 3333-3336 (1995)	✓
		Nagamaya et al. "Fabrication of two-dimensional colloidal arrays". <i>Phase Transitions</i> , vol. 45, 185-203 (1993)	
		Yeh, S.R., et al. "Assembly of ordered colloidal aggregates by electric-field-induced fluid flow". <i>Nature</i> , Mar. 6, 1997: 57-59. Vol. 386, No. 6620.	
		"Materials from Freedom of Information Act pertaining to David R. Walt".	
		Peterson, et al. "Fiber optic pH probe for physiological use," <i>Anal. Chem.</i> Vol. 52, 864-869 (1980)	
		Peterson, et al, "Fiber optic sensors for biomedical applications," <i>Science</i> , 13: 123-127 (1984)	
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		Barnard, et al, "A fibre-optic chemical sensor with discrete sensing sites," <i>Nature</i> , vol. 353: 338-340 (1991).	
		Campaign, et al. "Colored and fluorescent solid supports," <i>Innovation and Perspectives in Solid-Phase Synthesis</i> . Ed: E. Birmingham (Mayflowes, London), pp. 469-472 (1994).	
		Pope, "Fiber optic chemical microsensors employing optically active silica microspheres," <i>SPIE</i> , vol. 2388: 245-256 (1995).	
		Grazia, et al., "In-vivo biomedical monitoring by Fiber-Optic system," <i>Journal of Lightwave Technology</i> , 13, 1396-1406 (1995).	
		Bangs, "Immunological applications of microspheres," <i>The Latex Course</i> , Bangs Laboratories (April 1996)	
		"Flourescent Microspheres (Tech. Note #19)," Bangs Laboratories (1997)	
		Egner, et al., "Tagging in combinatorial chemistry: the use of coloured and fluorescent beads," <i>Chem. Commun.</i> pp. 735-736 (1997)	
		Fulton, et al., "Advanced multiplexed analysis with the FlowMetrix system," <i>Clinical Chemistry</i> , vol. 43:9, pp. 1749-1756 (1997)	
		Scott, et al. "Properties of flourophores on solid phase resins; implications for screening, encoding and reaction monitoring," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , 7:12, pp. 1567-1572 (1997)	
PSO		Healey, et al., "Fiberoptic DNA sensor array capable of detecting point mutations," <i>Analytical Biochemistry</i> , vol. 251, pp. 270-279 (1997).	✓

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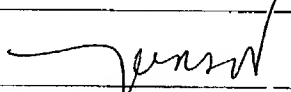
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pm		"Microsphere Selection Guide," Bangs Laboratories, Inc. (Fisher, IN) (September 1998)	
		Giersig, et al., "Formation of ordered two-dimensional gold colloid lattices by electrophoretic deposition," Journal of Physical Chemistry, vol. 97: 6334-6336	
		Seul, et al., "Scale transformation of magnetic bubble arrays: coupling of topological disorder and polydispersity," Science, vol. 262: 558-560 (1993).	
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		Seul, et al., "Domain shapes and patterns: the phenomenology of modulated phases," Science, vol. 267: 476-483 (1995)	
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		Haab, et al. "Single molecule fluorescence burst detection of DNA fragments separated by capillary electrophoresis," Analytical Chemistry, vol. 67 (No. 18): 3253-3256 (1995)	
		Richetti, et al. "Two-dimensional aggregations and crystallization of a colloidal suspension of latex spheres," J. Physique Lettr., Vol. 45: L-1137 – L-1143 (1984)	
		Sze, "MIS diode and charge-coupled device," The physics of semiconductors, Chapter 7, pp. 362-340 (2 <sup>nd</sup> edition) (Wiley Interscience 1981).	
		The International Preliminary Examination Report dated April 27, 1998, received in the corresponding international application	
pm		Handbook of Chemistry and Physics, 64 <sup>th</sup> edition, 183-184, pages B-196 and E-363	

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